

Information for Patients

Thyroid Eye Disease (TED)

What is Thyroid Eye Disease (TED)?

The thyroid gland is located in the neck and produces a hormone that helps regulate metabolism. Occasionally it can produce too much (hyperthyroid) or too little (hypothyroid) hormone. Imbalance in either direction can cause TED, but occasionally eye disease occurs when the thyroid function is entirely normal.

The precise cause of TED remains unknown, but it is an 'autoimmune' condition. This is where the body's normal 'immune response' used to fight infections reacts against its own tissues causing damage. It is also called thyroid associated ophthalmopathy, and Graves' orbitopathy or ophthalmopathy.

Can TED occur even if thyroid function tests are normal?

Symptoms and signs of TED may be present even when tests show a normal level of thyroid hormone in the blood. These patients may go on to develop abnormal thyroid function at a later date.

What are the symptoms of TED?

The severity of the disease varies and may involve one or both eyes. The majority of people suffering from TED may only complain of some redness and discomfort to the eyes, increased watering or light sensitivity. Other early signs include swelling or puffiness and redness of the eyelids. Swelling of the normal fatty tissue behind the eye and the eye muscles can push on the eye, causing it to protrude or bulge. Swelling of the muscles that move the eyes may produce double vision or aching on eye movement. A lot of these symptoms are worse first thing in the morning.

Some of the changes in appearance can alter facial expression, which can make people think you are angry or frightened when you are not. In severe cases, the eyelids may not shut properly causing the clear window of the eye (cornea) to dry out which can lead to ulceration; or the optic nerve behind the eye may be compressed resulting in loss of vision, but very rarely blindness.

How is TED treated?

The thyroid function must be evaluated and appropriately treated if abnormal. Any eye disease may continue to progress after the thyroid abnormality is treated and returned to normal; however, ensuring normal thyroid function is an essential first step.

Cigarette smoking aggravates TED; it can make the severity of the disease worse, and the medical treatments less effective. Stopping smoking reduces the chance of developing severe sight threatening TED, and also reduces the chance of a further episode in the future.

The management of TED can be quite complex and treatment is planned on an individual basis. TED should be considered to have two phases. The first phase involves treating the active eye disease. The active period, which usually lasts up to 2 years, requires careful monitoring and possible medical treatment until stable. Numerous treatments are available, and commonly include eye drops and ointments. Prisms can be added to glasses to help control double vision. In more severe cases 'immunosuppressive' treatments such as steroids, radiation (X-Ray treatment) of the orbit (eye socket) may be required.

The second phase involves surgical correction of any unacceptable permanent changes that persist once the active phase has passed and the disease has passed its worst stage. Treatment for inactive disease may require surgical correction (orbital decompression) of eye bulge, double vision (squint surgery), or eyelid abnormalities.

What support is available?

The course of the disease can vary and in some cases be prolonged lasting several years. This can have a significant impact on your life and additional information and support can be useful. There are patient support groups as well as input from the multi-disciplinary team available at the Manchester Royal Eye Hospital.

If you are worried or wish to ask any questions about this information, please contact the Oculoplastic nurse practitioner via the hospital switchboard on: (0161) 276 1234 and ask the operator to bleep 5235 or 5605 Monday–Friday 9.00 am - 5.00 pm or contact staff on Ward 55 via the hospital switchboard on: (0161) 276 1234, available 24 hours a day.

